UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30323

JUN 04 1992

Report Nos: 50-348/92-15 and 50-364/92-15

Licensee: Alabama Power Company
600 North 18th Street
Birmingham, AL 35291-0400

Docket Nos.: 50-348 and 50-364 License Nos.: NPF-2 and NPF-8

Facility Name: Farley 1 and 2

Inspection Conducted: May 4 through 8, 1992

Inspector: Thomas R Decker for 6/3/92
R. P. Carrion Date Signed

Approved by: Thomas R Decker 6/3/92
T. R. Decker, Chief Date Signed
Radiological Effluents and
Chemistry Section
Radiological Protection and
Emergency Preparedness Branch
Division of Radiation Safety
and Safeguards

SUMMARY

Scope:

This routine, unannounced inspection was conducted in the areas of the organization of the Chemistry/Environmental Department and the Radwaste Unit (including personnel training and qualification), plant water chemistry, process and effluent monitors, the Semiannual Effluent Release Report, the Radiological Environmental Monitoring Program, the on-site landfill, shipping of radioactive material, contingencies for long-term on-site Low Level Radwaste (LLW) Storage, and decommissioning planning records.

Results:

The licensee had made one structural change in its Chemistry/ Environmental Department and several personnel changes to key/lead positions of the Chemistry/Environmental Department and the Radwaste Group. However, the respective organizations remained capable of performing their assigned tasks. The

Training Program was well-structured to provide a pool of well-trained Environmental and Chemistry technicians. (Paragraph 2).

Plant water chemistry was maintained well within limits specified by the Technical Specifications. (Paragraph 3).

The licensee's program for maintaining and calibrating the plant's process and effluent monitors was being successfully implemented. (Paragraph 4).

The licensee's Semiannual Radioactive Effluent Release Report satisfied regulatory requirements. (Paragraph 5).

The licensee's plant operations had caused minimum impact to the environment and virtually no dose to the general public. (Paragraph 6).

The licensee had an adequate program in place to assure that no hazardous contaminated material was released to an Unrestricted Area and/or disposed of in the onsite landfill. (Paragraph 7).

The Radwaste Group was staffed by competent personnel who effectively implemented the program. (Paragraph 8).

The licensee had progressed in its contingency plans for long-term storage of low level radioactive waste. (Paragraph 9).

The list of significant events required for decommissioning planning will be compiled as an addendum to the forthcoming "Decommissioning Cost Study." (Paragraph 10).

REPORT DETAILS

1. Persons Contacted

Licensee Employees
*W. Boyd, Radwaste Technician
T. M. Burr, Chemistry/Environmental Technician
*O. M. Graves, Health Physics (HP) Supervisor
P. Haynes, Plant Instructor (Chemistry)
*R. Hill, Assistant General Manager - Support
*R. A. Livingston, Environmental Supervisor
*M. W. Mitchell, HP Superintendent
*N. McGilvray, Nuclear Specialist I
*D. N. Morey, General Manager - Nuclear Plant
J. K. Osterholtz, Technical Manager
J. A. Ripple, Nuclear Administration Manager
*L. M. Stinson, Assistant General Manager of Operations
*G. Terry, Safety Audit and Engineering Review (SAER) Auditor
*J. M. Walden, HP Supervisor
*W. H. Warren, Technical Training Supervisor
*R. T. Wood, Chemistry Supervisor

Other licensee employees contacted during this inspection included engineers, operators, technicians, and administrative personnel.

Nuclear Regulatory Commission

G. Maxwell, Senior Resident Inspector
*M. Morgan, Resident Inspector

*Attended exit interview

Acronyms and Initialisms used throughout this report are listed in the last paragraph.

2. Organization (84750 and 86750)

a. Chemistry and Radwaste Units

Technical Specification (TS) 6.2 describes the licensee's organization.

The inspector reviewed the licensee's organization, staffing levels, and lines of authority as they related to the Chemistry Department and Radioactive Waste Group to verify that the licensee had not made organizational changes which would adversely affect the ability to control radiation exposures or radioactive material.

Since the last time this area was reviewed (see Inspection Reports 50-348, 50-364/92-22), one change to

the structure of the organization had been made. The Emergency Planning function had been removed from the Environmental Group and made a full-time position in the Training Department. The positions of Chemistry Superintendent and Technical Manager had been filled by new personnel. The Chemistry Superintendent, who reported to the Technical Manager, supervised a staff of fifty nine, including the Chemistry Group and the Environmental Group. The Chemistry Group was stable with forty one positions, including the supervisor, five foremen, and thirty three technicians. There were two vacancies at the time of the inspection. The Environmental Group had undergone some changes. The previously-vacant supervisor's position had been filled on a permanent basis by the former Chemistry Foreman of the Group, which left that position vacant. The Radwaste Supervisor, who reported to the Health Physics Superintendent, oversaw the activities of a staff of forty four when at full strength, including foremen, helpers-nuclear, radiation detection men, etc. The former Radwaste Supervisor had been moved to another corporate position and had been replaced on a temporary basis by a former Radwaste Supervisor. The position was to be filled on a permanent basis by the end of May by the current Health Physics (HP) Supervisor. There were two vacancies for helpers-nuclear at the time of the inspection but the organization was stable and capable of executing its duties as related to radwaste shipping/handling.

The inspector concluded that although new personnel had assumed key/lead positions, the respective organizations were capable of performing their assigned tasks.

b. Training and Qualification (84750 and 86750)

TS 6.4.1 requires the licensee to maintain a training program for the plant staff to assure that the minimum education and experience requirements of Section 5.5 of ANSI N18.1-1971 and Appendix "A" of 10 CFR 55 and the supplemental requirements specified in Sections A and C of Enclosure 1 of the March 28, 1980 NRC letter to all licensees are met before a person can be considered to be qualified to perform his duties independently. The program shall include familiarization with the relevant operational experience.

The inspector interviewed the licensee's Technical Training Supervisor about the Training/Qualification Program in general and more specifically in the area of Chemistry. Basically, a new trainee must proceed

through a 21-week two-part initial program composed of classroom/laboratory work, conducted in the Farley Nuclear Plant (FNP) Training Center whereby technical knowledge is acquired and basic skills developed through exercises based upon tasks performed in the plant, and an "On-The-Job" (OTJ) period during which the trainee is required to perform selected tasks under close supervision. A Qualification Record (QR) is established for the trainee during the OTJ period and is used to document and guide his performance. The QRs are divided into distinct phases so that technical knowledge and skill development activities occur in the proper sequence to ultimately support the QR examination, conducted during the OTJ portion of the technical training program. Upon completion of this program, the individual may independently perform tasks for which he is qualified. For the qualified technician who performs tasks independently, there is a retraining program designed to maintain a base level of knowledge by reviewing various applicable topics as well as providing updated information. Three cycles of retraining, each of 32-hour duration, are planned annually. Five classes with ten to twelve employees in attendance present required topics (such as job-related procedures, industry events, core damage mitigation, etc.) and requested topics (such as new/modified tasks, a system review, etc.). Cross training for the Chemistry and Environmental Groups was taking place to add flexibility to the organization.

The inspector reviewed Initial Chemistry Training Lesson Plan C&E-40106F, "Ionics Ultimate Water System." It included clearly stated course purposes and objectives, class handouts, review questions, and a written examination (which required a minimum score of 80 to pass). The inspector concluded that the lesson was adequate for training purposes.

The inspector randomly selected the names of several chemistry technicians and reviewed their respective QRs to assure that the training records were being accurately maintained. No irregularities were identified and the inspector concluded that training documentation was good.

The inspector concluded that the Training Program was well structured to provide a pool of well-trained Environmental and Chemistry (E&C) technicians.

c. Overtime (84650)

The use of overtime is addressed in TS 6.2.2.f.

The inspector discussed this issue with the Environmental Supervisor, who provided the inspector with a summary of personnel time sheets for his unit. The inspector reviewed the log and determined that the TS requirements had been satisfied.

No violations or deviations were identified.

3. Plant Water Chemistry (84750)

At the beginning of the inspection, Farley Unit 1 was operating at 100 percent power, while Unit 2 had completed it eighth fuel cycle (in early March) and was finishing its refueling outage. Unit 1 was in its eleventh fuel cycle and its next refueling outage was scheduled for autumn 1992. The inspector reviewed the plant chemistry controls and operational controls affecting plant water chemistry during early 1992.

TS 3.4.8 specifies that the concentrations of dissolved oxygen (DO), chloride, and fluoride in the Reactor Coolant System (RCS) be maintained below 0.10 parts per million (ppm), 0.15 ppm, and 0.15 ppm, respectively. TS 3.4.9 specifies that the specific activity of the primary coolant be limited to less than or equal to 1.0 microcurie/gram (uCi/g) dose equivalent iodine (DEI).

These parameters are related to corrosion resistance and fuel integrity. The oxygen parameter is based on maintaining levels sufficiently low to prevent general and localized corrosion. The chloride and fluoride parameters are based on providing protection from halide stress corrosion. The activity parameter is based on minimizing personnel radiation exposure during operation and maintenance.

Pursuant to these requirements, the inspector reviewed tabular daily summaries which correlated reactor power output to chloride, fluoride, and dissolved oxygen concentrations of the reactor coolant for the period of January 1, 1991 through March 31, 1992 and determined that the parameters were maintained well below TS limits. Typical values for DO, chloride, and fluoride were less than ten parts per billion (ppb), less than twenty ppb, and less than nine ppb, respectively, for both units. The inspector also reviewed graphical (for Unit 2) and tabular (for Unit 1) daily summaries for specific activity in the reactor coolant for the periods of February 1, 1992 to April 30, 1992 (for Unit 1) and January 1, 1992 to March 31, 1992 (for Unit 2). Typical DEI values at steady-state conditions were 9.5E-3 uCi/g for Unit 1 and 4.0E-4 uCi/g for Unit 2.

The licensee suspected a pin-hole leak in the Unit 1 fuel, based on a small iodine (I-131) spike during power changes. It was not evident during steady-state power operation.

The inspector concluded that the Plant Water Chemistry was being maintained well within the TS requirements.

No violations or deviations were identified.

4. Process and Effluent Monitors (84750)

TSs 3/4.3.3.1, 3/4.3.3.10, and 3/4.3.3.11 define the operation and surveillance requirements for monitors of radioactive (or potentially radioactive) streams. This instrumentation is provided to monitor and control the releases of radioactive materials during normal and abnormal plant conditions as well as in effluents during effluent releases. The alarm/trip setpoints for the effluent monitors are calculated in accordance with the procedures in the Offsite Dose Calculation Manual (ODCM) to ensure that the alarm/trip will occur prior to exceeding the limits of 10 CFR 20. The alarm/trip setpoints for the process monitors are specified by the TSs.

The inspector walked down four Unit 1 (R-1A, R-21, R-22, and R-24A and B) and four Unit 2 (R-3, R-9, R-13, and R-18) process and effluent monitoring stations to become familiar with their physical location in the plant and to observe their state of maintenance and operability. All monitors were found to be well-maintained and operable.

The inspector reviewed the calibration records of Unit 1 monitors R-1A (an area monitor), R-21 (a particulate monitor), and R-22 (an off-line gas monitor) and Unit 2 monitors R-3 (an area monitor), and R-18 (the Waste Monitor Tank Release Monitor). No irregularities were identified.

The inspector concluded that the program for maintaining and calibrating the plant's process and effluent monitors was being successfully implemented.

No violations or deviations were identified.

5. Semiannual Radioactive Effluent Release Report (84750)

TS 6.9.1.8 requires the licensee to submit a Semiannual Radiological Effluent Release Report within the specified time periods covering the operation of the facility during the previous six months of operation. TS 6.9.1.9 identifies the requirements for the content and format of the report. The inspector reviewed the report for the second half of 1991 to verify TS compliance. These data are summarized

below for the respective entire calendar years.

Radioactive Effluent Release Summary

Farley, Units 1 and 2	1989	1990	1991
Abnormal Releases			
Gaseous	0	1	2
Liquid	0	0	0
Activity Released (curies)			
a. Liquid			
1. Fission and Activation Products	1.47E-1	1.58E-1	4.05E-1
2. Tritium	1.31E+3	1.41E+3	8.24E+2
b. Gaseous			
1. Fission and Activation Gases	2.59E+2	8.82E+1	4.64E+2
2. Particulates and Iodines	3.72E-5	3.15E-6	1.62E-3
3. Tritium	2.08E+2	8.75E+1	1.39E+2

The two 1991 releases noted were minor gaseous releases from Unit 1 in the second quarter, which resulted in a total activity of 5.89E-9 Ci being released.

The following table summarizes solid radwaste shipments for the previous few years. These shipments typically include spent resins, filter sludges, dry compressible waste, and contaminated equipment.

Farley Solid Radwaste Shipments

	1988*	1989	1990	1991
Number of Shipments	22	30	52	78
Number of Irradiated Fuel Shipments	0	0	0	0
Volume (cubic meters)	163.0	485.1	150.9	150.0
Activity (curies)	864.3	400.2	294.3	1036.6

* Second half of 1988 only.

For solid radwaste, no trends were evident.

No changes to the Process Control Program (PCP) were made during this reporting period.

The inspector concluded that the Semiannual Radioactive Effluent Release Report satisfied the requirements of the TSs.

No violations or deviations were identified.

6. Annual Radiological Environmental Operating Report (84750)

TS 6.9.1.6 requires that the Report be submitted prior to May 1 of the following year of the Report. TS 6.9.1.6 also states format and content requirements for the Report.

The inspector reviewed the Annual Environmental Operating Report for calendar year 1991 to verify compliance with the TSs. The Report had been submitted in compliance with TS 6.9.1.6 on April 30, 1992, and the format and contents were as prescribed by the TS. There were no changes to the environmental monitoring network during 1991. The inspector determined that the Report was in compliance with the TSs.

The Farley Nuclear Plant Environmental Monitoring Program is designed to detect the effects, if any, of plant operation on environmental radiation levels by monitoring airborne, waterborne, ingestion, and direct radiation pathways in the area surrounding the plant site. Indicator sampling stations are located where detection of the radiological effects of the plant's operation would be most likely, where the samples collected should provide a significant indication of potential dose to man, and where an adequate comparison of predicted radiological levels might be made with measured levels. Control stations are located where radiological levels are not expected to be significantly influenced by plant operation, i.e., at background locations. An environmental impact assessment of plant operation is made from the radiological readings of the sampling stations.

The inspector concluded that the licensee had a good program in place to detect the effects of radiological effluents, direct radiation, etc. due to plant operations and that those operations had caused minimum impact to the environment and virtually no dose to the general public.

No violations or deviations were identified.

7. Onsite Landfill Disposal (84750)

During Inspections 50-348, 50-364/91-22 and 92-05, the inspector reviewed the licensee's onsite landfill operations, including a survey of its contents. During the current inspection, the inspector conducted a follow-up inspection to assure that no radioactive or otherwise hazardous material found its way into the landfill for disposal.

Of interest to the inspector was the disposal of water and resins used in the cleanup the Emergency Diesel Generator (EDG) Cooling Jacket, which may contain hazardous material, such as chromates. Discussion with the licensee determined that the EDG was cooled by Service Water, rather than the Component Cooling Water (CCW) and, therefore, could not contain any radioactive material. Also, the licensee analyzed each batch of water processed through the ion exchange resin to determine if the resin was saturated. Even if the resin was completely saturated with chromates, its concentration would be 1.17 milligrams per liter (mg/l). This value was determined by a chemical analysis conducted by an independent laboratory using the U. S. Environmental Protection Agency's (EPA) Toxicity Characteristic Leaching Procedure (TCLP). The inspector reviewed the Certificate of Analysis from the laboratory and found it to be in order. The EPA sets the maximum level above which chromium is considered to be toxic (and therefore subject to regulation) at 5.0 mg/l in Table 1 of 40 CFR 261.24(a). Therefore, even if fully saturated with chromates, the resin was not considered to be a hazardous waste requiring regulation and could be disposed of in the onsite landfill like any other non-hazardous material. State regulations mandate that no intact containers be placed in the landfill. The licensee, therefore, emptied the contents of any resin-containing 55-gallon drums, removed them from the landfill, and crushed them. The landfill had been inspected annually by the Alabama Department of Environmental Management (ADEM) to determine compliance with the ADEM Administrative Code, Division 335-13. The inspector reviewed the inspection reports of several past years and noted that no violations were identified. After being processed through ion exchangers, the water is sampled for chromates and radionuclides before being released in accordance with the licensee's National Pollutant Discharge Elimination System (NPDES) Permit, which allows a concentration of up to 0.5 parts per million (ppm) (which also equals 0.5 mg/l). Typical release concentration levels were approximately 0.005 ppm, or approximately two orders of magnitude lower than required (i.e., it was about one hundred times "safer" than required). The sample water was disposed of by being

poured into the Water Treatment Plant (WTP) Sump and would eventually be pumped to the Waste Settling Pond.

The inspector concluded that the licensee had implemented an aggressive program to ensure that no hazardous material (radioactive or otherwise) would be placed in its onsite landfill.

No violations or deviations were identified.

8. Transportation of Radioactive Material (86750)

10 CFR 71.5(a) requires each licensee who transfers licensed material outside of the confines of its plant or other place of use, or who delivers licensed material to a carrier for transport, shall comply with the applicable requirements of the regulations appropriate to the mode of transport of DOT in 49 CFR Parts 170 through 189.

Pursuant to these requirements, the inspector reviewed the licensee's activities affiliated with these requirements, to determine whether the licensee effectively processes, packages, stores, and ships radioactive solid materials. The licensee's program for the packaging and transportation of radioactive materials, including solid radwaste, was conducted by the Radwaste Group within the Health Physics Department. Radwaste was processed and packaged (including the preparation of shipping documentation) by the Radwaste Group.

a. Radwaste Shipment Documentation Packages

Shipment of radioactive materials was the responsibility of the Radwaste Group. The Radwaste Group prepared all shipping manifests and procured the necessary disposal containers and shipping casks.

The inspector reviewed three randomly selected shipping packages for radioactive material shipments made since his previous inspection of this area (Inspection No. 50-348, 50-364/91-22). They included Radioactive Material Shipment Nos. RWS 92-07, RWS 92-10, and RMS 92-12. The packages thoroughly documented the shipments and included items such as unique shipment and shipping container numbers, waste content and volume, total activity, analytical summary and breakdown of isotopes with a half-life greater than five years, scaling factor calculations, age of representative samples, etc.

The inspector concluded that the shipping documents were complete and were being maintained as required.

b. Observation of Radioactive Material Shipment

The inspector observed a radioactive material shipment (Shipment No. RWS 92-13) to evaluate the effectiveness of training, attitudes of personnel, etc. The shipment was a HIC of dewatered bead resin from the Solidification Dewatering Facility (SDF) destined for burial at the disposal facility at Barnwell, South Carolina. The inspector observed the final dewatering step prior to its removal from its cubical by the overhead crane and placement in the cask of the shipping vehicle. The dewatering was done per Procedure No. F424-P-006, Rev. 0, "Transfer and Dewatering Bead Resin In Westinghouse Radlok High Integrity Containers (HIC) With A Single Layer Underdrain Assembly To Less Than 1% Drainable Liquid." The inspector reviewed the procedure and found it to be complete. The inspector observed that it was closely followed by the technician. The inspector also attended the task briefing conducted by HP to review the work to be done, to assure that each member of the work detail thoroughly understood his/her function, to review probable radiation levels during the work evolution, to review required HP controls/postings, etc. The work proceeded smoothly; each member handled his/her responsibilities in an efficient, professional manner. The HIC was loaded into the cask and the cask was capped. The technicians proceeded to take a radiation survey at the surface of the cask to assure compliance with regulatory requirements. A "hot spot" was discovered on the bottom of the cask which was determined to be barely acceptable (190 mrem/hr measured vs 200 mrem/hr allowable). The licensee decided to place the HIC back into its cell in the SDF and ship it later using a cask with more shielding, rather than risk a potential problem with the shipment.

The inspector concluded that the Radwaste Group was staffed by competent personnel who effectively implemented the program.

No violations or deviations were identified.

9. Low Level Radwaste (LLW) Storage (84760)

The inspector requested an update on the contingencies being pursued by the Farley management with respect to LLW long-term on-site storage.

Production Change Request 91-0-7860 continued to be routed for approval. Potential storage locations, generated radwaste quality data, and existing facilities had been

considered in a detailed generic study for all three nuclear plants of the Southern Company. The study envisioned the use of concrete pads and storage modules, which would require approximately three months to construct. It included a safety evaluation which determined that a revision to the Final Safety Analysis Report (FSAR) was needed to reflect the presence of the storage facility. A preliminary design which could be utilized at all three Southern Company nuclear sites was developed and discussed/reviewed by representatives from each of the sites and corporate headquarters at a meeting held in Birmingham, Alabama on May 7, 1992. The basic generic design concept was as originally envisioned (i.e., a storage pad and individual containers for each HIC, handled by mobile cranes). It was very detailed and considered the following:

- Various HIC arrays and shielding to ensure that 10 CFR 20 and 40 CFR 190 dose limits to the general public are not exceeded.
- The slab design for two possibilities, one arrangement with stacked storage modules and one without stacked modules.
- The fence around the storage facility to limit access to the facility and provide radiation dose protection to non-involved personnel, and included gate locations for truck, crane, and personnel access.
- Lighting to allow work activities at night as well as illumination for security.
- Electrical power for monitoring and surveying equipment.
- The design of the storage containers to provide the necessary shielding while being light enough to allow the use of existing on-site cranes for handling.
- The design of additional shield walls (should they become necessary) to provide ease of installation and flexibility of arrangement as circumstances dictate.

A final design was expected to be selected and construction contract awarded by early August. Procurement of construction materials was scheduled to begin in October. Construction of the facility was scheduled to begin in December and would be ready to receive the storage modules by mid-March, 1993.

The inspector concluded that the plan was complete and appropriate for the storage of LLW and that the licensee's management was proceeding in a prudent manner.

No violations or deviations were identified.

10. Decommissioning Planning Records (84750)

10 CFR 50.75(g) requires that licensees maintain "records of information important to the safe and effective decommissioning of the facility in an identified location until the license is terminated by the Commission." Furthermore, information considered important by the Commission for decommissioning is identified as "records of spills or other unusual occurrences involving the spread of contamination in and around the facility, equipment, or site" and that the records "must include any known information on identification of involved nuclides, quantities, forms, and concentrations." Also identified are "as-built drawings and modifications of structures and equipment in restricted areas where radioactive materials are used and/or stored and of locations of possible inaccessible contamination such as buried pipes which may be subject to contamination."

The inspector requested the licensee's decommissioning records to verify compliance with the regulations. Discussions with the licensee's Manager of Nuclear Administration determined that the subject information was in the licensee's document vault, mainly in the form of Plant Event Reports (PERs). However, the records were not segregated in one readily identifiable area, nor was a listing identifying such documents available.

The inspector was shown the "Decommissioning Cost Study" for the Farley Plant (which satisfies part of the referenced regulation). The study was updated every three years and was due for review this year for issue in the first half of 1993. However, the inspector explained that his interest was with the physical plant and its operations, as referenced above. The licensee suggested that a logical location for a listing of appropriate events would be in an addendum to the forthcoming study. Furthermore, the Administrative Procedures would be revised to identify future events/incidents as they occurred and incorporate them into the study's addendum. The inspector accepted this plan of action as reasonable.

The inspector will revisit this issue in a future inspection to review the status of the compilation of applicable events/incidents as well as to review the procedural revisions for adequacy.

No violations or deviations were identified.

11. Exit Interview

The inspection scope and results were summarized on May 8, 1992, with those persons indicated in Paragraph 1. The inspector described the areas inspected and discussed the inspection results, including likely informational content of the inspection report with regard to documents and/or processes reviewed during the inspection. The licensee did not identify any such documents or processes as proprietary. Dissenting comments were not received from the licensee.

12. Acronyms and Initialisms

ADEM - Alabama Department of Environmental Management
ANSI - American National Standards Institute, Inc.
C&E - Chemistry and Environmental
CCW - Component Cooling Water
CFR - Code of Federal Regulations
Ci - curie
DEI - Dose Equivalent Iodine
DO - Dissolved Oxygen
DOT - Department of Transportation
EDG - Emergency Diesel Generator
EPA - Environmental Protection Agency
FNP - Farley Nuclear Plant
FSAR - Final Safety Analysis Report
g - gram
HIC - High Integrity Container
HP - Health Physics
hr - hour
l - liter
LLW - Low Level Radwaste
mg - milligram
mrem - milli-rem
No. - Number
NPDES - National Pollutant Discharge Elimination System
NRC - Nuclear Regulatory Commission
ODCM - Off-site Dose Calculation Manual
OTJ - On-The-Job
PCP - Process Control Program
PER - Plant Event Report
ppb - parts per billion
ppm - parts per million
QR - Qualification Records
RCS - Reactor Coolant System
REMP - Radiological Environmental Monitoring Program
SDF - Solidification Dewatering Facility
TCLP - Toxicity Characteristic Leaching Procedure
TS - Technical Specification
uCi - micro-Curie (1.0E-6 Ci)
WTP - Water Treatment Plant

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DO - Dissolved Oxygen
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EDG - Emergency Diesel Generator
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FNP - Farley Nuclear Plant
FSAR - Final Safety Analysis Report
g - gram
HIC - High Integrity Container
HP - Health Physics
hr - hour
l - liter
LLW - Low Level Radwaste
mg - milligram
mrem - milli-rem
No. - Number
NPDES - National Pollutant Discharge Elimination System
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